

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A raise bore drilling and lining apparatus for creation of a borehole comprising:

a raise boring drill for boring a raise into a pilot hole using a drill string to create a bore hole; a reamer head affixed to one end of said drill string, and spreader assembly for distributing a liner material on the wall of said bore hole, said assembly affixed to said reamer head, and a material supply to supply lining material to said spreader assembly.
2. Apparatus according to claim 1 wherein said material supply includes a duct extending axially along said drill string.
3. Apparatus according to claim 2 wherein said spreader assembly includes a plate rotatable relative to said reamer head.
4. Apparatus according to claim 3 wherein said plate is rotatable by a motor located within said spreader assembly.
5. Apparatus according to claim 4 wherein said motor is driven by fluid supplied through said drive string.
6. Apparatus according to claim 5 wherein said liner material is supplied by a pair of ducts, each carrying a respective component of said liner material.
7. Apparatus according to claim 6 wherein each of said ducts is connected to a respective reservoir within said spreader assembly.
8. Apparatus according to claim 7 wherein said reservoirs are connected to respective pipes to deliver material within said reservoir to said plate.

9. A reamer assembly for use with a raise bore drilling and lining apparatus, said reamer assembly including a reamer head, a spreader assembly secured to said reamer head for movement therewith, and a material supply to deliver material to said spreader assembly.
10. A reamer assembly according to claim 9 wherein said spreader assembly includes a plate rotatable relative to said reamer head to dispense material.
11. A reamer assembly according to claim 10 wherein including a motor rotate said plate.
12. A reamer assembly according to claim 11 wherein said motor is fluid driven.
13. A reamer assembly according to claim 10 including a material reservoir and supply pipes extending from said reservoir to deliver material to said plate.
14. A reamer assembly according to claim 13 including a pair of reservoirs, each having respective supply pipes.
15. A drill rod comprising an outer casing, a connection at opposite ends of said rod to permit said rods to be connected in seriatim into a drill string and a liner located within said casing, said liner having a plurality of concentric tubes each defining a fluid passageway to convey fluid axially within said rod from one end to another.
16. A drill rod according to claim 15 wherein said tubes are supported at axially spaced intervals within said casing.
17. A drill rod according to claim 16 wherein said liner is supported radially and axially within said casing.
18. A method of drilling and lining a raise bore hole comprising the steps of:
 - (a) boring a pilot hole with a pilot bit secured to a drill string;

- (b) replacing said pilot bit with a reamer assembly including a spreader, assembly to dispense lining material;
- (c) reaming said pilot hole for a specified distance to create a bore hole by moving said reamer assembly axially in a first direction whilst rotating said drill string;
- (d) moving said reamer assembly in an opposite axial direction to said first direction;
- (e) applying a liner medium to the wall of said bore hole using said spreader assembly whilst moving said reamer assembly axially in said first direction.

19. The method of claim 18 including repeating steps (c), (d), and (e) until the desired length of bore hole has been created.

20. The method of claim 19 including the step of supplying said liner medium through a duct within said drill string.

21. The method of claim 20 including the step of flushing said duct between repetitions of steps (c), (d), and (e).